

- This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended) A method of treating an irradiated food product comprising packaging a food product in a modified atmosphere, irradiating said food product, and removing oxidants from the modified atmosphere, such that oxidation of the food product is impeded for a predetermined period of time after packaging the food product.

Claim 2 (original) The method of claim 1, wherein packaging a food product comprises packaging the food product in a multi-layer film, wherein the multi-layer film includes an inner oxygen-permeable layer and an outer oxygen-impermeable layer, and wherein removing oxidants from the modified atmosphere comprises packaging the food product using a substantially oxidant-free modified atmosphere.

Claim 3 (original) The method of claim 2 further comprising removing the outer oxygen-impermeable layer after irradiating the food product.

Claim 4 (original) The method of claim 1, wherein packaging the food product further comprises applying an oxidant-reactive chemical substance to the food product.

Claim 5 (original) The method of claim 4, wherein applying an oxidant-reactive chemical substance comprises applying a chemical selected from the group consisting of a metal chelating agent and an antioxidant.

Claim 6 (original) The method of claim 5, wherein applying a metal chelating agent comprises applying a chelating agent selected from the group consisting of a phosphate and ascorbic acid.

Claim 7 (original) The method of claim 5, wherein applying an antioxidant comprises applying an antioxidant selected from the group consisting of butylated hydroxyanisole and butylated hydroxytoluene.

Claim 8 (cancelled)

Claim 9 (cancelled)

Claim 10 (currently amended) The method of ~~claim 8~~ claim 2, wherein the inner oxygen-permeable layer comprises a film having an oxygen transmission rate of at least about 100 cc/m²/24 hours.

Claim 11 (currently amended) The method of ~~claim 8~~ claim 2, wherein the outer oxygen-impermeable layer comprises an oxygen transmission rate of no more than about 100 cc/m²/24 hours.

Claim 12 (currently amended) The method of ~~claim 8~~ claim 2, wherein the substantially oxidant-free modified atmosphere comprises a gas selected from the group consisting of nitrogen, carbon dioxide, argon, krypton, xenon, neon and mixtures thereof.

Claim 13 (currently amended) The method of ~~claim 8~~ claim 2, wherein irradiating the food product comprises subjecting the food product to radiation selected from the group consisting of gamma ray, x-ray and electron beam.

Claim 14 (original) The method of claim 13, wherein irradiating the food product comprises substantially reducing populations of microorganisms selected from the group consisting of bacteria, yeast and molds that are present on the food product.

Claim 15 (currently amended) The method of ~~claim 8~~ claim 2, wherein packaging the food product comprises placing the food product in a tray and sealing the substantially oxidant-free modified atmosphere within the tray using the multi-layer film.

Claim 16 (currently amended) The process of ~~claim 8~~ claim 2, wherein the food product comprises a food selected from the group consisting of meat, poultry, fish, fresh produce and spices.

Claim 17 (original) A method of treating a food product comprising:
packaging a food product in a modified atmosphere; and
complexing oxidants and irradiating the food product, such that oxidation of the food product is impeded for a predetermined period of time after irradiating the food product.

Claim 18 (original) The method of claim 17, wherein complexing oxidants comprises applying an oxidant-reactive chemical substance to the food product.

Claim 19 (original) The method of claim 18, wherein applying an oxidant-reactive chemical substance comprises applying a chemical selected from the group consisting of a metal chelating agent and an antioxidant.

Claim 20 (original) The method of claim 19, wherein applying a metal chelating agent comprises applying a chelating agent selected from the group consisting of a phosphate and ascorbic acid.

Claim 21 (original) The method of claim 19, wherein applying an antioxidant comprises applying an antioxidant selected from the group consisting of butylated hydroxyanisole and butylated hydroxytoluene.

Claim 22 (original) A method of treating a food product comprising:
applying an oxidant-reactive chemical substance to the food product;
packaging a food product in a substantially oxidant-free modified atmosphere; and
irradiating the food product.

Claim 23 (original) The method of claim 22, wherein packaging the food product comprises packaging the food product in a multi-layer film, wherein the multi-layer film includes an inner oxygen-permeable layer and an outer oxygen-impermeable layer.

Claim 24 (original) The method of claim 23, wherein the inner oxygen-permeable layer comprises a film having an oxygen transmission rate of at least about 100 cc/m²/24 hours.

Claim 25 (original) The method of claim 23, wherein the outer oxygen-impermeable layer comprises an oxygen transmission rate of no more than about 100 cc/m²/24 hours.

Claim 26 (original) The method of claim 23 further comprising removing the outer oxygen-impermeable layer after irradiating the food product.

Claim 27 (original) The method of claim 22, wherein packaging the food product further comprises applying an oxidant-reactive chemical substance to the food product.

Claim 28 (original) The method of claim 27, wherein applying an oxidant-reactive chemical substance comprises applying a chemical selected from the group consisting of a metal chelating agent and an antioxidant.

Claim 29 (original) The method of claim 28, wherein applying a metal chelating agent comprises applying a chelating agent selected from the group consisting of a phosphate and ascorbic acid.

Claim 30 (original) The method of claim 28, wherein applying an antioxidant comprises applying an antioxidant selected from the group consisting of butylated hydroxyanisole and butylated hydroxytoluene.

Claim 31 (original) The method of claim 22, wherein the substantially oxidant-free modified atmosphere comprises a gas selected from the group consisting of nitrogen, carbon dioxide, argon, krypton, xenon, neon and mixtures thereof.

Claim 32 (original) The method of claim 22, wherein packaging the food product comprises placing the food product in a tray and sealing the substantially oxidant-free modified atmosphere within the tray using a multi-layer film.